



Replacement Sequence Listing
SEQUENCE LISTING

<110> KOHARA, Michinori
WATANABE, Tsunamasa
TAIRA, Kazunari
MIYAGISHI, Makoto
SUDO, Masayuki

<120> Oligoribonucleotide or Peptide Nucleic Acid Inhibiting the Function of Hepatitis C Virus

<130> 382.1047

<140> PCT/JP04/000605
<141> 2004-01-23

<150> JP 2003/016750
<151> 2003-01-24

<160> 56

<170> PatentIn Ver. 2.1

<210> 1
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 1
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ccccccctccc gggagagcca tagtggctcg cggAACCGT gagtacaccg gaattgccag 180
gacgaccggg tcctttctt gatcaacccg ctcaatgcct ggagatttg gcgtgcccc 240
gcaagactgc tagccgagta gtgttgggtc gcgaaaggcc ttgtggtaact gcctgatagg 300
gtgcttgcga gtgccccggg aggtctcgta gaccgtgcac catgagcacg aatcctaaac 360
ctcaaaaaaa aaacaaacgt aacaccaacc gtcgcccaca ggacgtcaag ttcccgggtg 420
gcggtcagat cgttgggtgaa gtttacttgt tgccgcgcag gggccctaga ttgggtgtc 480
gcgcgacgag aaagacttcc 500

<210> 2
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 2
cgattggggg cgacactcca ccatagatca ctccccctgtg aggaactact gtttcacgc 60
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cgggagagcc atagtggctcg gcggaaaccgg tgagtagacc ggaattgcca ggacgaccgg 180
gtcctttctt ggatcaaccc gctcaatgcc tggagatttg ggcgtgcccc cgcgagactg 240
ctagccgagt agtgggtgggt cgcgaaaaggc cttgtggtaac tgccctgatag ggtgcttg 300
agtccccgg gagggtctcgta agaccgtgca ccatgagcac gaatcctaa cctcaaagaa 360
aaaccaaaacg taacaccaac cgccgcccac aggacgtcaa gttccgggc ggtggtcaga 420
tcgttgggtgg agtttacctg ttgccgcgcag gggcccccag gttgggtgtc cgccgcggcc 480
ggaagacttc cgagcggtcg 500

<210> 3
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 3

Replacement Sequence Listing

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gagagccata	gtggtctgcg	gaaccgggtga	gtacaccgg	attggccagga	cgaccgggtc	180
ctttcttgc	tcaaccgcgt	caatgcctgg	agatttgggc	gtgcccccg	gagactgcta	240
gccgagtagt	gtggggtcgc	gaaaggcctt	gtggtagtgc	ctgataggg	gcttgcgagt	300
gccccgggag	gtctcgtaga	ccgtgcata	tgagcacaaa	tcctaaacct	caaagaaaaa	360
ccaaacgtaa	caccaaccgc	cgccccacagg	acgttaagtt	cccgggcgtt	ggtcagatcg	420
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<210> 4
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 4	gggccagccc	ccgattgggg	gcgacactcc	accatagatc	actccctgt	gaggaactac	60
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accccccctc	ccgggagagc	catatggtc	tgccgaaacc	gtgagtagac	cggaatttgc	180	
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ccgcgagact	gctagccgag	tagtgggg	tcgcgaaagg	ccttgggt	ctgcctgata	300	
gggtgcttgc	gagtgcggc	ggaggtctcg	tagaccgtgc	atcatgagca	caaatccaa	360	
accccaaaga	aaaaccaaac	gtaacaccaa	ccgtcgccca	caggacgtca	agttcccg	420	
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<210> 5
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 5	acccgcccc	taataggggc	gacactccgc	catgaatcac	tccctgtga	ggaactactg	60
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gcaagactgc	tagccgagta	gcgttgggtt	gcaaaaggcc	ttgtggta	gcctgatagg	300	
gtgcttgcga	gtgccccggg	aggtctcgta	gaccgtgcac	catgagcaca	aatcctaaac	360	
ctcaaagaaa	aacccaaaga	aacactaacc	gtcgcacaca	agacgttaag	tttccggcg	420	
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gcacagcaag	gaagacttcg					500	

<210> 6
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 6	acccgcccc	taataggggc	gacactccgc	catgaatcac	tccctgtga	ggaactactg	60
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ccccccctcc	gggagagcca	tagtggtctg	cggaaccgg	gagtagacacc	gaatttgcgg	180	
gaagactggg	tccttcttg	gataaacc	ctctatgccc	ggccatttgg	gcgtgcccc	240	
gcaagactgc	tagccgagta	gcgttgggtt	gcaaaaggcc	ttgtggta	gcctgatagg	300	
gtgcttgcga	gtgccccggg	aggtctcgta	gaccgtgcac	catgagcaca	aatcctaaac	360	
ctcaaagaaa	aacccacaga	aacactaacc	gtcgcacaca	agacgttaag	tttccggcg	420	
gcggccagat	cgttggcgga	gtatacttgt	tgccgcgt	ggggccctaga	ttgggtgtgc	480	
gcacagcaag	gaagacttcg					500	

<210> 7

Replacement Sequence Listing

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 7

acccgccccct	aatagggcg	acactccgcc	atgaaccact	ccccctgttag	gaactactgt	60
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ccccctcccg	ggagagccat	agtggctgc	ggaaccgggt	agtacaccgg	aattgccggg	180
aagactgggt	cctttcttgg	ataaaaccac	tctatgccc	gtcatttggg	cgtcccccg	240
caagactgct	agccgagtag	cgttgggtt	cgaaaggcct	tgtggtactg	cctgataggg	300
tgcttgcag	tgccccggga	ggtctcgtag	accgtgcacc	atgagcacaa	atcctaaacc	360
tcaaagaaaa	acccaaagaa	acaccaaccg	tcgcccacaa	gacgttaagt	ttccgggcgg	420
cggccagatc	gttggcgag	tatacttgg	gccgcgcagg	ggcccccaggt	tgggtgtgcg	480
cgcgacaagg	aagacttcgg					500

<210> 8

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 8

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ccccctcccg	ggagagccat	agtggctgc	ggaaccgggt	agtacaccgg	aattgccggg	180
aagactgggt	cctttcttgg	ataaaaccac	tctatgccc	gccatttggg	cgtcccccg	240
caagactgct	agccgagtag	cgttgggtt	cgaaaggcct	tgtggtactg	cctgataggg	300
cgcttgcag	tgccccggga	ggtctcgtag	accgtgcacc	atgagcacaa	atcctaaacc	360
tcaaagaaaa	acccaaagaa	acaccaaccg	tcgcccagaa	gacgttaagt	tcccgccgg	420
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<210> 9

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 9

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ccccctcccg	gggagagcc	tagtggctgc	cggAACCGGT	gagtacaccg	gaattgccgg	180
gaagactggg	tctttcttgg	gataaaaccac	ctctatgccc	ggccatttgg	gcgtcccccg	240
gcaagactgc	tagccgagta	gcgttgggtt	gcgaaaggcc	ttgtggtact	cctgatagg	300
gtgcttgcga	gtccccgggg	aggtctcgta	gaccgtgcac	catgagcaca	aatcctaaac	360
tcaaagaaaa	aacccacaga	aacactaacc	gtcggccaca	agacgttaag	ttccggccgg	420
cgggccagat	cgttggcgga	gtatacttgg	tgccgcgcag	ggggccctaga	tgggtgtgc	480
gcacgacaag	gaagacttcg					500

<210> 10

<211> 500

<212> DNA

<213> Hepatitis C virus

<400> 10

acccgccccct	aatagggcg	acactccgcc	atgaatcact	ccccctgttag	gaactactgt	60
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ccccctcccg	ggagagccat	agtggctgc	ggaaccgggt	agtacaccgg	aattgccggg	180
aagactgggt	cctttcttgg	ataaaaccac	tctatgccc	gccatttggg	cgtcccccg	240
caagaccgct	agccgagtag	cgttgggtt	cgaaaggcct	tgtggtactg	cctgataggg	300
tgcttgcag	tgccccggga	ggtctcgtag	accgtgcacc	atgagcacaa	atcctaaacc	360
tcaaagacaa	acccaaagaa	acaccaaccg	tcgcccacaa	gacgttaggt	ttccggccgg	420

Replacement Sequence Listing

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cgcgacaagg aagacttcgg 500

<210> 11
<211> 500
<212> DNA
<213> Hepatitis C virus

<400> 11
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tcttcacgc aaaaagcgtct agccatggcg ttagtatgag tgcgtacag cctccaggcc 120
ccccccctccc gggagagcca tagtggctcg cggaaaccggt gagtacaccg gaattaccgg 180
aaagactggg tcctttcttg gataaaccca ctctatgtcc ggtcatttgg gcacgc(ccc 240
gcaagactgc tagccgagta gcgttgggtt gcgaaaggcc ttgtggtaact gcctgatagg 300
gtgcttgcga gtgccccggg aggttcgtt gaccgtgcat catgagcaca aatcctaaac 360
ctcaaagaaa aacccaaaga aacacaacc gcccgc(caca ggacgttaag ttcccgggtg 420
gcccgtcagat cttggcggg gtttacttgc tgccgcgcag gggccccagg ttgggtgtgc 480
gcccgcacaag gaagacttct 500

<210> 12
<211> 311
<212> DNA
<213> Hepatitis C virus

<400> 12
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catttcctgt tttttttttt tttttttttt tttttttttt tttttttttc tttcctttcc 180
ttttttttt ctttctttt tcccttctt aatggtggtt ccatttttagc cctagtcacg 240
gctagctgtg aaaggccgtt gagccgcattt actgcagaga gtgctgatac tggcctctct 300
gcagatcatg t 311

<210> 13
<211> 371
<212> DNA
<213> Hepatitis C virus

<400> 13
gtccagctgg ttctggctg gttacagcgg gggagacata tatcacagcc tgcgtgtgc 60
ccgaccggc tggttcatgt tgcctactt cttactttca gtggggtag gcatctacct 120
gctcccaac cgataaacgg ggagctaaac actccaggcc aataggccat ttctttttt 180
ttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 240
ctttctttt tttttttttt ttttcttctt tttgggtggctt ccatttttagc cctagtcacg 300
gctagctgtg aaaggccgtt gagccgcattt actgcagaga gtgctgatac tggcctctct 360
gcagatcatg t 371

<210> 14
<211> 439
<212> DNA
<213> Hepatitis C virus

<400> 14
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cgaccccgct tattactccct tggcctactc ctactttttt taggggttagg ccttttccct 180
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ttccttctca tttccttctt atcttaattt cttcctttcc tgggtggctcc atcttagccc 360
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Replacement Sequence Listing

439

gtatctctgc agatcatgt

<210> 15

<211> 347

<212> DNA

<213> Hepatitis C virus

<400> 15

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ccttttccta cttccccgctc ggttagagcgg cacacattag ctacactcca tagctaactg 180
tccctttttt tttttttttt tgtttctttt ctttctcatt tccttcttat ctttaattact 240
ttctttcctg gtggctccat cttagcccta gtcacggcta gctgtgaaag gtccgtgagc 300
cgcatactg cagagattgc cgtaactggc atctctgcag atcatgt 347

<210> 16

<211> 360

<212> DNA

<213> Hepatitis C virus

<400> 16

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tttactcccc gtcgggtaga gcccacaca tttagctacac tccatagcta actgttcctt 180
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ttttttttct ttcccttcctt tctcacccctc ttttacttct ttccctgggtg ctccatctta 300
gccctagtca cggttagctg tgaaagggtcc gtgagccgca tgactgcaga gagtgccgta 360

<210> 17

<211> 378

<212> DNA

<213> Hepatitis C virus

<400> 17

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cttcctactc cccgctcggt agagcggcac acacttagta cactccatag ctaactgttc 180
cttttttttt tttttttttt tttttttttt tttttttttt tttttttttt 240
cctctttctt cccttctcat ttattctac ttctttctt ggtggctcca tcttagccct 300
agtcaacggct agctgtgaaa ggtccgtgag ccgtcatgact gcagagagtg ccgttaactgg 360
tctctctgca gatcatgt 378

<210> 18

<211> 374

<212> DNA

<213> Hepatitis C virus

<400> 18

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gcgtgcccga ccccgcctat tactccttag cctactccca ctttcgttag gggtaggcct 120
cttcctactc cccgctcgat agagcggcac acattagcta cactccatag ctaactgttc 180
cttttttttt tttttttttt tttttttttt tttttttttt tttttccctc 240
tttctttccct ttcctatctta ttctacttcc ttcttgggtg gctccatctt agccctggc 300
acggcttagct gtgaaagggtc cgtgagccgc atgactgcag agagtgccgt aactggtctc 360
tctgcagatc atgt 374

<210> 19

<211> 354

Replacement Sequence Listing

<212> DNA

<213> Hepatitis C virus

<400> 19

tagatttac cgggtggttc accgtggcg ccggcgaaaa cgacatctt cacagcgtgt 60
cgcatgcccgc accccgccta ttactccctt gcctactcct acttagcgta ggagtaggca 120
tctttttact ccccgctcg tagagcgca aaccctagct acactccata gctagtttc 180
ttttttttt tttttttttt tttttttttc ctctttttcc gtatttttt 240
ttttccctct tttcttggtt gctccatctt agccctagtc acggctagct gtgaaaggtc 300
cgtgagccgc atgactgcag agagtgcgt aactggctc tctgcagatc atgt 354

<210> 20

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 20

ggaacuacug ucuucacgca g 21

<210> 21

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 21

gccauagugg ucugcgaaac c 21

<210> 22

<211> 22

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 22

aggccuugug guacugccug au 22

<210> 23

<211> 20

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 23

gucucguaga ccgugcauca 20

<210> 24

<211> 21

<212> DNA

Replacement Sequence Listing

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 24

gcgaaaggcc uugugguacu g

21

<210> 25

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 25

gucucguaga ccgugcacca

20

<210> 26

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 26

gucucguaga ccgugcauca u

21

<210> 27

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 27

ggaacuacug ucuuacgca g

21

<210> 28

<211> 21

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 28

gccaugugg ucugcgaaac c

21

<210> 29

<211> 22

<212> RNA

<213> Artificial Sequence

<220>

Replacement Sequence Listing
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 29
aggccuugug guacugccug au 22

<210> 30
<211> 20
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 30
gucucguaga ccgugcauca 20

<210> 31
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 31
gcgaaaggcc uugugguacu g 21

<210> 32
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 5'-UTR target siRNA

<400> 32
gucucguaga ccgugcacca 20

<210> 33
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3'-UTR target siRNA

<400> 33
ggcuccaucu uagccuagu c 21

<210> 34
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 3'-UTR target siRNA

<400> 34

Replacement Sequence Listing

21

ggcuagcugu gaaaggguccg u

<210> 35

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer
Ds5-41-S25

<400> 35

actccccgtt gaggaactac tgtct

25

<210> 36

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer
Ds3-8864-S25

<400> 36

aggatgattc ttagtacccca tttct

25

<210> 37

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer
Ds3-9267-S23

<400> 37

gcggggaga catatatcac agc

23

<210> 38

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer
Ds5-201-S25

<400> 38

tggatcaacc cgctcaatgc ctgga

25

<210> 39

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:primer
Ds5-261-S25

Replacement Sequence Listing

<400> 39
tagtgtgg tcgcgaaagg ccttg 25

<210> 40
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-311-S25

<400> 40
gagtccccg ggaggtctcg tagac 25

<210> 41
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-612-R23

<400> 41
ccctcggtgc catagagggg cca 23

<210> 42
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-857-R25

<400> 42
aaccgggcaa attccctgtt gcata 25

<210> 43
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds3-9537-R25

<400> 43
gactagggct aagatggagc cacca 25

<210> 44
<211> 23
<212> DNA
<213> Artificial Sequence

<220>

Replacement Sequence Listing

<223> Description of Artificial Sequence:primer
Ds3-9611-R23

<400> 44
acatgatctg cagagaggcc agt 23

<210> 45
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-397-R23

<400> 45
gcggcggttg gtgttacgtt tgg 23

<210> 46
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:primer
Ds5-360-R25

<400> 46
ttaggatttg tgctcatgtat gcacg 25

<210> 47
<211> 572
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
siRNA-1

<400> 47
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siRNA-2

Replacement Sequence Listing

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<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:PCR product
siRNA-3

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<211> 748
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:PCR product
siRNA-4

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Replacement Sequence Listing

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
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<210> 52
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<213> Artificial Sequence

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siRNA-6

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<212> DNA
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<223> Description of Artificial Sequence:PCR product
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gtaacaccaa ccgcgc 197

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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:PCR product
Page 13

Replacement Sequence Listing

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<210> 55
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<223> Description of Artificial Sequence:PCR product
siRNA-9

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<212> DNA
<213> Hepatitis C virus

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Replacement Sequence Listing

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Replacement Sequence Listing

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gcagatcatg	t					9611